LIBRARY
RECEIVED
★ JUN 27 1923 ★
U.S. Department of Agriculture

THE PLANT DISEASE REPORTER

Continuation of

THE PLANT DISEASE BULLETIN

Issued By

THE PLANT DISEASE SURVEY

Volume VII Number 1

June 15, 1923

562157
13
Agw
49-61

BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

USDA
NAL

319304

THE PLANT DISEASE REPORTER

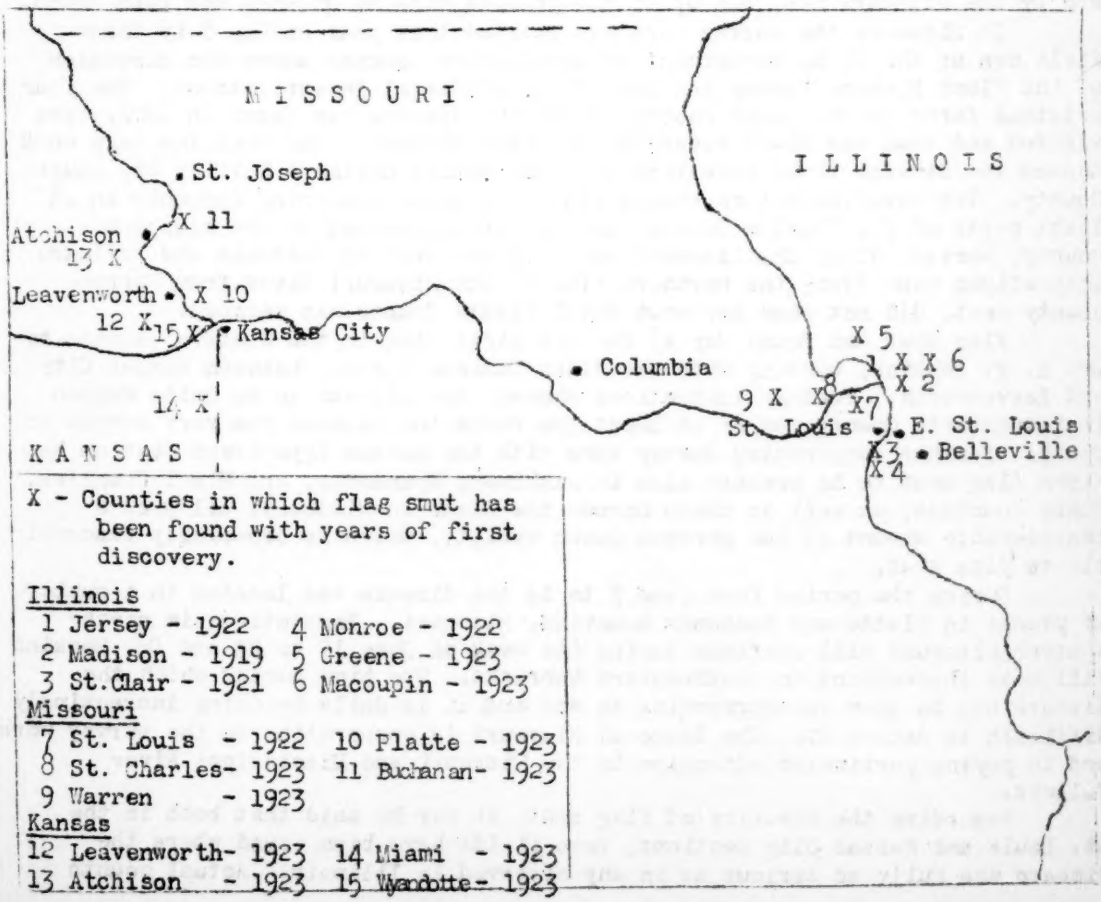
Continuation of the Plant Disease Bulletin

Issued by

THE PLANT DISEASE SURVEY

Vol. VII. June 15, 1923 Number 1

It will be noted that a change has been made in the name of this periodical. The word "Bulletin" when applied to publications of the United States Department of Agriculture has come to refer to the professional papers known as "Department Bulletins." In order to avoid confusion with these it has been thought desirable not to use the term "Bulletin" for other departmental publications. The name of this periodical will therefore be The Plant Disease Reporter from now on. The numbering of the volumes will be continuous with the Plant Disease Bulletin, and no marked changes in contents or arrangement are contemplated.



X - Counties in which flag smut has been found with years of first discovery.

Illinois

1 Jersey	- 1922	4 Monroe	- 1922
2 Madison	- 1919	5 Greene	- 1923
3 St. Clair	- 1921	6 Macoupin	- 1923

Missouri

7 St. Louis	- 1922	10 Platte	- 1923
8 St. Charles	- 1923	11 Buchanan	- 1923
9 Warren	- 1923		

Kansas

12 Leavenworth	- 1923	14 Miami	- 1923
13 Atchison	- 1923	15 Wyandotte	- 1923

Fig. 1. Present known distribution of flag smut of wheat in the United States (See next page).

THE 1923 SURVEY FOR FLAG SMUT OF WHEAT

Disease Found in Kansas and Missouri this Year

Flag smut of wheat has been found this year in Kansas, where it is known to occur in four counties in the vicinity of Kansas City and Leavenworth. To date it has also been found in four new Missouri Counties, two of which (Platte and Buchanan) are across the Missouri River from the Kansas area, while the other two (St. Charles and Warren) are in the eastern section not far from St. Louis. In Illinois flag smut has been found in two new counties, namely, Greene(2 infested fields) and Macoupin County (1 infested field). Outside of the quarantined area in the four Illinois counties where the disease occurred last year, the following new findings are recorded: Jersey County, 11 fields; St. Clair County, 2 fields; Monroe County, 3 fields; and Madison County, 2 fields. Inspections have been made in about thirty Illinois counties, and before the end of the season it is expected that practically all the counties in the State will be covered by the 24 inspectors of the Illinois Department of Agriculture.

The accompanying map shows the present distribution of flag smut by counties. It will be noted that there are apparently two areas of infestation, one in the vicinity of St. Louis and the other one with Kansas City and Leavenworth as the center. Some scouting has been done along the Missouri River between these two centers, both by the U. S. Department of Agriculture and by the Missouri men, but up to the present time no disease has been found.

In Missouri the survey work was started this year on May 8 by three field men of the U. S. Department of Agriculture working under the direction of the Plant Disease Survey and the Office of Cereal Investigations. The four original farms in St. Louis County, where the disease was found in 1922, were visited and smut was found recurring on three of them. The next few days work showed the disease to be prevalent over the entire northern half of St. Louis County. Two days inspection showed flag smut to be occurring commonly in at least parts of St. Charles County, and it was discovered in the adjacent county, Warren, along the Missouri River as far west as Holstein and Treloar. Inspections made along the northern side of the Missouri River from Warren County west, did not show any smut until Platte County was reached.

Flag smut was found May 18 for the first time in the State of Kansas by Dr. E. F. Hopkins, working with the Plant Disease Survey, between Kansas City and Leavenworth. Further inspections showed the disease to be quite common in Leavenworth County and on at least two farms the disease was very severe in spots. Further cooperative survey work with the Kansas Experiment Station has shown flag smut to be present also in Atchison, Wyandotte, and Miami Counties. These counties, as well as those across the River in Missouri, all grow a considerable amount of the Harvest Queen variety, which is especially susceptible to flag smut.

During the period from June 7 to 14 the disease was located in a number of places in Platte and Buchanan Counties, Missouri. Inspections in northwestern Missouri will continue during the week of June 17 to 23 and Dr. Hopkins will make inspections in southeastern Nebraska. The time during which the disease can be seen is approaching an end and it is daily becoming increasingly difficult to detect it. The State of Missouri is cooperating in the survey work and is paying particular attention to the Missouri and Mississippi River Valleys.

Regarding the severity of flag smut, it may be said that both in the St. Louis and Kansas City sections, some fields have been found where the disease was fully as serious as in any observed in Illinois. Actual counts

made in portions of certain fields this year have shown as high as 30 and 50% infected culms. This shows that the disease can become serious when conditions favor and that it is a trouble to be feared, especially in sections where susceptible varieties are being grown.

The new discoveries of flag smut have thrown a different light on the control program. A conference at Granite City was held on May 25, at which were present representatives from all states concerned. At another conference in Springfield, Illinois, the Illinois program was outlined. As a result of these conferences a plan of control was laid out along the following lines. For the most part, quarantine restrictions were removed, however, the Illinois Department of Agriculture will continue to regulate the shipment of straw from known infested areas. The other recommendations are not required but very strongly urged, and consist in the recommendation of sowing resistant varieties of wheat, especially the Trumbull variety as a smooth wheat and the Fulcaster as a bearded wheat. Copper carbonate seed treatment will be recommended and the state will purchase a certain amount of copper carbonate and dusting machinery for the use of growers. The other work will consist in securing the cooperation of millers and elevator managers and in assisting in the matter of getting resistant varieties adopted. The control program for Missouri and Kansas will apparently be laid out on similar principles. As the situation now stands, wheat from this year's crop may be shipped to any part of the country. It would, therefore, be very wise for farmers in other sections securing seed wheat from any of these areas, to treat such seed before planting it in order to prevent the possible introduction of flag smut.

TAKE-ALL OF WHEAT REPORTED FROM NORTH CAROLINA AND TENNESSEE

Three cases of take-all caused by Ophiobolus have recently been reported through the Office of Cereal Investigations and Dr. F. A. Wolf of the North Carolina Agricultural Experiment Station. The first report came from Lincolnton, Lincoln County, the second from Statesville, Iredell County, and the third from Concord, Cabarrus County, June 12. On the specimens received from each of these places the perithecia of Ophiobolus were abundant. In the Cereal Courier of May 20 the following statement is made:

> "Fresh specimens of diseased wheat found at Lincolnton, North Carolina, were received by Dr. Johnson from the North Carolina Agricultural Experiment Station. They show typical symptoms of true Australian 'take-all', namely, retarded spindly growth with marked yellowing and dying of plants, and blackening of basal portions, together with black mycelial 'plate' on the culm inside of basal sheath. Mature perithecia of the causal organism, Ophiobolus graminis Sacc., were found on the specimens by Dr. Johnson, thus making the identification of the disease certain. According to Dr. F. A. Wolf, plant pathologist, Raleigh, North Carolina, the wheat was 'dying in spots' in the field under observation, this condition also being characteristic of the disease, which has now been authentically reported from the following eight States: New York, North Carolina, and Virginia, in the East; Arkansas, Indiana, and Kansas, in the interior; and Oregon and Washington, in the West."

To the list of states given above in Dr. Johnson's report should now be added Tennessee. On May 21, C. D. Sherbakoff, H. B. Humphrey and others found a spot in the wheat plats on the University farm at Knoxville, Tennessee. The plants were not entirely killed in this spot, which was about 12 feet in diameter, but were greatly stunted and the infection was worse in the center of the spot than at the edge. Specimens from this place were examined microscopically by Sherbakoff at Knoxville, Kirby at Ithaca, N. Y. and A. G. Johnson at Washington, and all reported the perithecia present on the material as Ophiobolus cariceti (Berk. & Br.) Sacc. (Ophiobolus graminis Sacc.). This single spot on the Experiment Station farm was later disinfected by Dr. Sherbakoff.

In Cereal Courier 15, No. 6, accounts are given of the foot rot situation in Kansas as follows:

> "At Manhattan a careful record is being made of the rate of spread of take-all in the plots on the agronomy farm. The most severe infection in the State has appeared in the date and depth of plowing plots which are being continually sown to wheat. Two years' records are available showing the rate of spread of this disease. In many cases the spots increased 100 to 200 percent in size. This disease appeared for the first time last spring in another portion of the farm which is being devoted to the fertility wheat plots. These spots in 1922 were comparatively small.
>
> "A very extensive project comprising 5 acres of land at Abilene, Kansas, has been devoted to a study of the wheat foot-rot problem in Kansas for the past two years. So far, wheat foot-rot has been definitely located in the following counties: Dickinson, Riley, Leavenworth, Jefferson, Rice, Morris, Sedgwick, Saline, and Cheyenne. Up to the spring of 1922 Ophiobolus had not been definitely isolated from diseased material in Kansas. The field symptoms of foot-rot were strikingly similar, however, to the typical take-all disease. In May, 1922, perithecia of Ophiobolus were found on Kansas material. Prior to this cultures of what appeared to be Ophiobolus had been isolated in the laboratories at Manhattan. There seems to be no doubt that in some cases at least the wheat foot-rot symptoms in Kansas are due to the presence of Ophiobolus.

A report just received from H. H. McKinney states that perithecia of Ophiobolus have been found this year on material collected from the farm at Manhattan. It would appear, therefore, that Ophiobolus is at least one of the causes, if not the main cause for the foot rot conditions at these places in Kansas.

From New York, R. S. Kirby reports that as early as March 21, pure cultures of Ophiobolus were isolated from lesions on the roots of wheat and Agropyron repens collected from a field at Ithaca and adds that the situation is somewhat complicated this year on account of winter killing.

STEM RUST OF GRAINS

A few reports on stem rust have been received as follows. Collaborators are asked to keep the Plant Disease Survey informed as to the situation with regard to this disease. The first collection of stem rust made by the men engaged in the flag smut was from

Rhode Island: Very little rust on the barberry this year. Cups are just beginning to open. Fully a week later than last year. (H. M. Browning)

Kentucky: First appearance in year old timothy rusted previous fall was on March 4 on a small plant covered with about 2 inches of straw and protected on two sides by a brick and a stone. About a dozen new pustules developed during the next month but by May 17 all rusted leaves were dead and no new pustules developed. No other pustules found in this field to date. (W. D. Valleau)

Minnesota: Barberries were infected with Puccinia graminis May 4 in Rice County. The aecia, however, did not open until May 11. No stem rust found in the state and very little of the leaf rusts. (Sect. Plant Path.)

North Dakota: At this date no infection with Puccinia graminis has appeared on spring wheat, although in this locality close watch has been kept to determine the earliest date of appearance of the first pustules. The first infection on barberry in North Dakota was reported on May 22. Seeding of spring wheat was greatly delayed this year, most of the sowing being done after May 1. The first date of appearance of P. graminis on spring wheat at Fargo was June 13 in 1921 and June 26 in 1922. (Weniger)

REPORTS ON LEAF RUST OF WHEAT

During the period from May 15 to 23, Dr. E. B. Mains, who is investigating leaf rust of wheat at the Indiana Experiment Station in cooperation with the Office of Cereal Investigations, took a trip through the South, stopping at Lexington, Kentucky, Experiment, Georgia, and Knoxville and Union City, Tennessee. He found leaf rust (Puccinia triticina) very prevalent about Experiment, Georgia, where apparently it had appeared much later than usual. Susceptible varieties showed 100% infection upon all the leaves and the wheat was well headed but still green. At Knoxville, Tennessee, the rust apparently was just beginning to develop well. There was considerable variation in the susceptible varieties as to the amount, the heaviest being apparently about 50% in one or two places in the variety nursery there. At Union City, Tennessee, he found only a trace of leaf rust and at Lexington, Kentucky, did not see any. Concerning the situation he makes the following general statement:

> "Apparently leaf rust is much later in developing this year and it would appear as if it is not likely to be as severe as it has been in the past two years. Undoubtedly, it will be fairly heavy by harvest time but the length of time in which the rust acts is of considerable importance and is not likely to be so long a period this year unless wheat should be still further delayed in its maturing."

F. E. Kempton and N. R. Carmichael during a trip through parts of Maryland and Pennsylvania, May 19 to 20, found a few leaf rust pustules just appearing on the lower leaves in York and Adams Counties, Pennsylvania, and Baltimore County, Maryland. At the United States Department of Agriculture Experimental Farm at Arlington, Virginia, a few infected plants were noted by J. W. Taylor in early sown Purple Straw plats, May 14. Other reports of interest are as follows:

West Virginia: There is less wheat rust than we have ever noticed. In fact most fields in the eastern and western portion of the state are practically free from either leaf rust or stem rust. I do not know concerning the possible amount of stem rust in the southeastern part of the state. This is particularly surprising in view of the large amount of rust during the years of 1921 and 1922. It is undoubtedly the result of cool and rather dry weather most of the spring. (Giddings, June 9)

Kentucky: First appearance in volunteer wheat in clover field (in wheat last year) March 8. This was a new pustule. At this time there is practically no rust on Experiment Station farm and very little other places where wheat has been observed. This seems to be due primarily to the fact that an extremely small amount of rust overwinters on volunteer grains and apparently none in wheat fields. (Valleau)

Illinois: Puccinia triticina began to appear in Madison County during the last week of May. It has become slightly more abundant but will probably do little damage this year. It appeared earlier in other counties, for by June 2, I found it in fair abundance in Jackson County. The conditions in Jackson, Franklin, Saline, and White Counties were similar, Puccinia triticina being present on nearly all stalks of wheat in the fields. The uredinial sori were observable on the lower half and often all of the leaves, of the stalks and, estimating percentages of leaf infection according to the standards used for black stem rust, infections ranged from 5-50%. These 50% leaf infections were common in many fields. Only in such fields is it likely that red rust will cause appreciable damage. In Coles and Macon Counties where Turkey Red wheats are grown extensively and few fields of other varieties are seen, red rust is just showing up; a few sori appearing on some of the leaves in perhaps a third of the fields examined. However, in most of the fields, the wheat leaves show numerous yellow spots which may become sori of red rust later. Since the surfaces of the leaves were unruptured, I cannot definitely state that Puccinia triticina caused these yellow spots. (P. A. Young, June 12)

Minnesota: Leaf rust (Puccinia triticina - bare trace June 7. Heavy at this time last year. (Sect. Plant Path.)

LOOSE SMUT OF WHEAT

An abundance of loose smut is reported from Delaware and Maryland by Adams and Jehle, respectively. It seems to be their impression that the

disease is worse than usual. W. A. McCubbin reports an average of about 3% in several fields counted in southern Pennsylvania. Giddings states that there is considerable of the disease present and that very satisfactory results are being obtained from seed treatment given last fall. In Illinois, P. A. Young inspecting in Jackson, Franklin, Saline and White Counties, June 2 to 9, found 1 to 10% of the wheat heads affected, five percent infection being common with the percentage rising to 15% in a few cases. Very little loose smut was seen in the fields of Turkey Red wheat in Coles and Macon Counties, Illinois. Generally, there was less than .25% of the heads affected according to Young.

Attention is called to the great desirability of recording the variety of wheat when making inspections for loose smut. Sharp differences in the susceptibility of varieties occur, the soft red winter wheats in general showing more than other wheat classes.

The following report was received from Minnesota:

Minnesota: Loose smut has been found both in spring and winter wheat. First report June 7. Trace in most fields. (Sect. Plant Path.)

WHEAT SCAB REPORT FROM ILLINOIS

Scab was frequently collected by P. A. Young June 2 to 9 in White County, Illinois, on Fultz, Columbia and Stoddard County Pride. The amount was usually about 1% although in one case about 5% was noted.

SEEDLING BLIGHTS CAUSED BY HELMINTHOSPORIUM SATIVUM & GIBBERELLA SAUBINETII

New York and North Dakota report as follows on these diseases:

New York: Surveys in some ten counties have shown that Helminthosporium species, presumably sativum, are causing considerable seedling blight. This blight has been observed in the wheat before it starts to send up the culms, and it seems more than likely that it is not any more severe this year than heretofore but that observations were made at a time when the seedling blight could be more easily observed. (Kirby)

North Dakota: Although wheat was sown late this year due to the lateness of the season, very little seedling blight has occurred. Following sowing period, cool weather was general and the fungi did not bring about infection. Even in artificial inoculations in the field (Fargo) scab developed very slightly because of unfavorable weather conditions. In past years heavy infection has usually resulted in late sown crops. Further development of these is being closely watched, and reports will be made at a later date. (Weniger)

WHEAT ROOT AND FOOT ROT

Helminthosporium sp. is fairly abundant in Minnesota, especially on light soils, according to the Section of Plant Pathology at University Farm.

BARLEY LEAF RUST REPORT

From Kentucky W. D. Valleau makes the following interesting statement regarding this disease:

> "Oversummered on volunteer barley plants in clover field on Experiment Station Farm. First pustules observed March 14. These were evidently new pustules and contained viable spores. The inspected leaves all died and on April 6 no pustules were to be found on these or other volunteer plants examined. On April 25 an abundance of rust was found in a barley field near this clover field. It had apparently overwintered in the barley field."

HELMINTHOSPORIUM ROOT ROT OF BARLEY

Minnesota: Common on roots and leaves in southern part of state. (Sect. Plant Path.)

SPECIMENS OF HEAD SMUT OF RYE FROM KENTUCKY

Specimens of the head smut of rye (Ustilago sp.) have been received from W. D. Valleau of Kentucky who found several affected plants in two fields at Harrodsburg about May 22. One of the occurrences was on volunteer rye in a field of wheat. This is the first report for Kentucky. One smutted head was also found in Minnesota. Collaborators are asked to watch for this disease and send in specimens to the Plant Disease Survey.

CROWN RUST OF OATS

Under date of June 9, W. Weniger of North Dakota writes as follows:

> "Buckthorn hedges are again abundantly affected by the aecial stage of oat rust. Infection is about as early as last year when we had an epidemic of this disease on the buckthorn."

The aecial stage has also been reported from Massachusetts by W. H. Davis, June 2, and traces of the rust on oats were observed by P. A. Young in the southern part of Illinois June 2 to 9.

Minnesota: The first aecia of Puccinia coronata on Rhamnus cathartica were found on May 22 at University Farm, St. Paul. The bushes are fairly generally infected in the southern part of the state, but the infection is light. (Sect. Plant Path.)

REPORTS WANTED ON THE POWDERY MILDEW OF RED CLOVER

What is the situation with regard to powdery mildew of clover this year? On Dr. Mains' trip through Georgia, Tennessee and Kentucky, May 17 to 23, he found it at Experiment, Georgia, and one plant was noted with mildew on variety plots at Knoxville, Tennessee. At the other two places where he stopped in Kentucky and Tennessee, however, no mildew was evident.

C. W. Edgerton, on June 9, reports as follows:

> "Infection about the same as last year, beginning in early May. All strains of red clover attacked but strains from Europe and South America more resistant than American strains. This was very noticeable in the Station plots."

In Illinois P. A. Young found rather light infestations in some fields in southern Illinois, especially Jackson County, June 2-9. Some of the disease has been noticed in the District of Columbia and adjacent Virginia, but as yet it is not at all conspicuous. Collaborators are asked to make as many observations as possible on this disease and report the same promptly to the Plant Disease Survey.

LEAF SMUT OF GRASSES

Leaf smut (Ustilago striaeformis) has been reported on timothy, June grass, and red top from Massachusetts, May 15, and on timothy and Kentucky blue grass from Kentucky June 3. It was abundant on these two hosts in the latter state.

HEAT CANKER OF FLAX

Minnesota: Up to 18% at Purgatory Swamp trial plots in Hennepin County. Seems to be fairly general throughout southern part of state, probably due again to recent hot weather. (Sect. Plant Path.)

North Dakota: Early sown flax, contrary to usual occurrence, was subjected to a severe attack of heat canker in this region (Fargo and vicinity) following high temperatures on June 2 and 3. We have no reports as yet regarding the extent of the territory covered in the attack. This attack is very early as compared with known records of occurrence in other years. (W. E. Brentzel)

APPLE SCAB

A considerable number of apple scab reports have been received from eastern states and although they indicate heavy primary infection it seems apparent that as yet secondary infection has not been especially serious. Collaborators in a number of states, particularly those farther north, suggest that a rather light attack may be experienced. However, an abundance of the fungus seems to be present on the trees and periods of rainy weather during the summer may result in heavy infection of the fruit.

From Massachusetts Osmun reports the first ejection of ascospores on May 1 and the first scab infestations from Littleton, May 16 on check plots

in experimental orchards. The first discharge of ascospores in Wayne County, N. Y., was on April 30, according to H. W. Fitch, and Chupp reports the first recorded appearance of scab on May 16 in Dutchess County, N. Y. In New Jersey the first apple scab was found in the Hammonton section on May 16, according to W. H. Martin, and at that time the fungus was fruiting.

In Illinois, H. W. Anderson found ascospores maturing unusually early this year, some of them being completely formed but not ready to discharge on May 24. However, on April 1 they were mature and ready to discharge. This was more than two weeks before there were any signs of bursting the apple buds. According to Anderson, indications are that in the region concerned a pre-pink spray or a delayed dormant would have been of considerable value. He states that in spite of the early maturity of the ascospores, scab was slow in developing in Illinois, and appeared on fruit and leaves at about the same time.

In Wisconsin also scab was late in developing, according to Vaughan. Showers about the first of June probably stimulated spore discharge. In Minnesota there was very heavy primary infection starting about May 21. According to Minnesota collaborators, however, the secondary infections have been rather infrequent, probably on account of dry, hot weather.

New York: The early, cool wet weather hastened the development of scab, but evidently the later prolonged period of sunshine has checked it again. The first recorded appearance was on May 16 in Dutchess County. It has also been observed in Cortland, Orleans, Tioga, Tompkins, and Wayne. In twelve counties special Pathology Assistants are directing the spray service, so that in nearly every commercial orchard, the spray applications are made when suggested by these Assistants who make their recommendations after studying the conditions of the buds, the development of insects and diseases, and obtaining by telegraph from the local Weather Bureau the weather forecasts for the succeeding two or three days. (Chupp)

Pennsylvania: Apple scab is appearing in the apple districts of southern Pennsylvania. The season has been favorable to the control of scab and where the standard spray schedule has been followed there is scarcely any sign of it, most of the cases being found where spraying has been irregular or poor, or has been omitted. Most of the scab seen is confined to the foliage. (McCubbin, June 2)

West Virginia: Apple scab is developing and there is a possibility of considerable loss from this if weather conditions should become favorable for later infections. (Giddings, June 9)

FIRE BLIGHT COMMON ON APPLE

Reports from New Jersey, District of Columbia, Illinois, and Colorado indicate a considerable amount of fire blight on apple in certain sections. Collaborators from Ohio and Pennsylvania report the disease as present but as not general nor severe at this time. Some of the reports are as follows:

New Jersey: Fire blight was first observed on apples on May 28 in South Jersey on the Star variety. This trouble promises to be quite severe this year. At New Brunswick an apple tree adjacent

to a severely blighted Crataegus showed considerably more blight than remaining trees in the orchard. (W. H. Martin, June 7)

Illinois: Fire blight is unusually bad on apple in southern Illinois this year. While infections in commercial orchards observed were not very serious 70% of the twigs were killed on one uncared-for tree and in an orchard of a dozen partially cared-for trees the infection was between 40 and 50%. (P. A. Young, June 12)

Wisconsin: Observed in Experiment Orchard, Madison, June 1 as blossom blight and twig blight. Exudate from active cankers on medium sized limbs. (1 inch in diameter). (Vaughan, June 5)

Colorado: This disease has appeared in Delta County and in some cases a loss of 50% is reported. In an orchard near Loveland it is very prevalent. (Learn, June 7)

CEDAR RUST OF APPLES

The prospects for comparative freedom of West Virginia apples from rust in the cedar rust section seems good, according to the following report from Giddings:

> "Up to the present time there has been practically no development of apple rust in the eastern section of West Virginia. This is the principal apple growing section and there is a prospect that there will be less rust than has been recorded in the past twenty years."

In Minnesota the report comes that cedars were heavily and generally infected, the galls starting to gelatinize about May 6.

A NEW HOST FOR MOSAIC

Dr. F. M. Blodgett of the New York Agricultural Experiment Station at Ithaca has found an evident mosaic on apple foliage, which he has been able to transmit by means of grafting. Readers are asked to make observations on apple diseases of this nature and report the same to Dr. Blodgett or to the Plant Disease Survey.

PEACH LEAF CURL

The following reports give an indication of the situation with regard to peach leaf curl:

Rhode Island: Very abundant this season, on all varieties, nearly 100% infection on some young trees was noted, even those trees receiving the dormant spray are badly attacked in some cases. (Harold Browning, June 9)

New York: Peach leaf curl is unusually prevalent this season. Specimens of diseased leaves have been received from the following counties: Bronx, Broome, Chemung, Columbia, Cortland, Tompkins, and Wayne. The first report was received on May 11 from Bronx County. Where the late fall or early spring spraying was practiced, the disease was controlled almost completely.

All commercial orchards are sprayed, but there are always a few orchards where the applications are made too late. The latest approximate dates on which the spraying could safely be done this season was April 10 in the southern part of the State and April 20 in the Ontario district. (Chupp)

Kentucky: Universal - probably as severe as it can be. (Valleau, June 3)

Georgia: There has, of course, been a good deal of peach leaf curl. (McHatton, June 8)

Ohio: Comparatively few reports have been received. This is a marked contrast to last season.

Illinois: In orchards that were not properly sprayed, peach leaf curl was very bad this spring; almost total defoliation often occurring. (P. A. Young, June 12)

Peach leaf curl the worst I have ever seen it. Serious in many orchards sprayed with winter strength lime sulfur but generally not serious in well sprayed orchards. Bordeaux oil emulsion does not seem as effective as lime sulfur in control. (Anderson, June 9)

BROWN ROT OF PEACH IN FORT VALLEY DISTRICT OF GEORGIA

Georgia: The blossom blight form of the common brown rot of peaches was first observed in the field on March 28 on Yellow Hiley blossoms. It was also observed on Carman, Elberta, Georgia Belle and Uneeda. Only on the latter did it assume serious proportions. Several Uneeda orchards in this district have a rather severe infestation. Blighted blossoms are still producing spore tufts after every rainfall and it is an open question as to what effect these sources of infection will have on fruit when it starts to ripen. (J. C. Dunegan, May)

Brown rot was first observed on small Yellow Hiley peaches May 4. This was the first fruit infection I noted this year. When placed in a moist chamber characteristic spore pustules developed within 12 hours. On May 9 after a period of rainy weather fruit infection producing spore tufts in the field was noted on Uneeda peaches that had dropped from the tree. (Dunegan, May 21)

BACTERIUM PRUNI ON SWEET CHERRIES

The following interesting report of an attack of sweet cherries by Bacterium pruni is reported from New York:

"In Columbia County in 1922 some sweet cherry trees were grafted, while others of the same variety in the orchard were left intact. This spring the grafted trees, although the grafts did not take, were affected severely by the bacterial leaf spot. The remaining trees were free from disease. Evidently the pruning which was necessary for the grafting lessened the vigor of the trees to such an extent that they became susceptible to the attack of Bacterium pruni." (Chupp, 1923)

NEW JERSEY REPORTS ON SWEET POTATO DISEASES

"The usual amount of stem rot caused by Fusarium batatatis and Fusarium hyperoxysporum is found in the sweet potato hot beds of this state. In plant beds where water was not consistently applied during the drouth, many of the diseased sprouts and potatoes are detected and thrown out.

"Some Nancy Hall sweet potatoes bedded for sprouts in a greenhouse were found infected with Rhizoctonia sp. With the naked eye the size and color of the Sclerotia are similar to those found on the Irish potato. The infection is not attacking the sprout so far. It is not known where infection took place. It is the only variety infected out of eleven in the same bed.

"May 26, a Sclerotinia sp. was found to be the cause of damping-off of several hundred sweet potato sprouts of the vineless Yellow Jersey variety in a greenhouse bed at Medford. The sprouts were very thick, maintaining an abundance of moisture along the top of the soil and on plants that had fallen over. When first seen there was an abundance of small Sclerotia on the plants. They are very small in culture, being similar in size to those of Sclerotinia minor described by Jagger and Beach. No apothecia could be found. It is the first report of a Sclerotinia rot of sweet potatoes from this state." (R. F. Poole, June 7)

REPORTS ON CABBAGE DISEASES FROM LOUISIANA

"About the same amount of Sclerotinia rot (S. libertiana) as usual, the loss ranging from 1 to 10% in different fields. In a few fields the loss was practically 100%. In these fields there was a heavy production of apothecia at the time the heads were forming.

"Bacterial leaf spot (Bacterium maculicolum) - Very common on both the outer and the head leaves. Caused some losses in cabbage that did not mature rapidly.

"Black rot (Bacterium campestre) - Much more severe than usual in the Hammond district. Caused a heavy loss in many places, especially in fields that run into the warm weather." (Edgerton, June 9)

WILDFIRE OF TOBACCO

Considerable amounts of wildfire in tobacco seed beds have been reported by collaborators from Massachusetts, Connecticut, New York, Maryland and Kentucky. In Massachusetts not a single case of wildfire had been found on May 31 in certain beds where spraying and dusting with copper fungicides according to methods developed at the Experiment Station had been practiced. In Kentucky, Valleau is collecting some very interesting and important information concerning contamination of the plant beds by the weeders using chewing tobacco.

Library,
U. S. Department of Agriculture,
Washington, D. C.